

December 12, 2013

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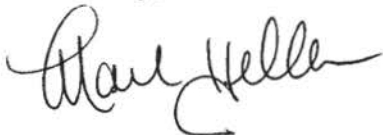
Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Room TW-B204
Washington, DC 20554

Dear Secretary Dortch:

Transmitted herewith, are comments and further suggestions regarding MB Docket Number 13-249, which is entitled 'Revitalization of the AM Radio Service'. The initial window to receive comments and proposals is currently open.

I am submitting an Original and four copies, as required.

Sincerely,



Mark Heller

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In the Matter of)
) MB Docket No. 13-249
Revitalization of the AM Radio Service)

Comes now, Mark Heller, an individual, (hereinafter, "Heller") with comments and submissions of further proposals in the Commission's Notice of Proposed Rulemaking, adopted October 29, 2013. Heller is the owner of two AM radio stations and one FM radio station, based in Wisconsin. He holds a General Class Radiotelephone license, an Extra Class Amateur Radio license (WB9RF) and presently serves his fellow broadcast engineers as a volunteer on the National Board of Directors of the Society of Broadcast Engineers, for many years.

SUPPORT OF FM TRANSLATORS FOR AM LICENSEES

That, Heller agrees that the Commission should open an "FM Translator Filing Window" exclusively for AM licensees and permittees. Heller also agrees that each translator should be 'locked' into the AM license, so the two may not be sold off, individually. Heller complains that this part of the FCC's initiative is not really 'AM Improvement' but an 'olive branch' extended to small market AM broadcasters and especially Class D daytime radio stations, who need help. Heller realizes some markets simply will not qualify, and that the FM band could find itself crowded or cluttered with additional signals. This will not solve AM's technical problems, unfortunately.

**IMMEDIATELY BEGIN TO CATCH UP ON LARGE BACKLOG OF
REQUESTS FOR 'PRE-SUNRISE AND POST-SUNSET'
REQUESTS FOR CLASS 'D' STATIONS, WHICH HAVE BEEN
IGNORED UNILATERALLY BY THE COMMISSION FOR SEVERAL
YEARS**

That, Heller proposes the Commission also immediately implement the issuing of "Pre-Sunrise and Post-Sunset Authority " for AM

stations. This was eliminated many years ago, unilaterally, at the Commission level, without any mention to broadcasters and permittees, except to say the computer program was apparently destroyed (or ruined), which calculated the wattages and coverages. Various Consulting Engineers were willing to donate their computer program, to assist the FCC, and as I understand it, the Commission staff, declined repeatedly. It is no longer acceptable to 'let sleeping dogs, lie', with AM issues like this. Heller asks for the backlog of requests to be acted upon, as soon as humanly possible.

RE-VISIT THE RE-PURPOSE OF FORMER ANALOG TELEVISION CHANNELS 5 AND 6, A TOTAL OF 12 MHZ, FOR THE USE OF AM BROADCASTERS ON AN EXPANDED FM BAND. (76 Mhz to 88 Mhz)

That, Heller proposes that the Commission revisit its review of Channels 5 and 6, a second time, for a place on the FM dial where AM broadcasters could relocate. While Commissioners were afraid of acting due any upcoming 'incentive auction', there is an opportunity to migrate some AM operators to those frequencies. If the Commission is reluctant to allow AM broadcasters to migrate to Channel 5 and 6, they should at the very least, open the 6 Mhz spectrum, used by Channel 6, at a very minimum. Heller admits, receivers that would accommodate this frequency could be ten years away, however that is an issue, with receiver manufacturers.

OPEN THE EXPANDED BAND TO APPLICANTS WILLING TO MIGRATE THERE.

That, Heller suggests the Commission perform an internal study, as to the miserable failure of the AM Expanded Band. Initially started with 88 permittees, there have been licenses turned back. Not a majority, but the Band could be made more efficient, by allowing 5,000 watt days, 1,000 watts night in the future. Most US Radios now accommodate these frequencies. That portion of the band should not be a vast wasteland, as it is today, and broadcasters should be able to apply for migration to that portion of the band, if they desire. The attitude, that this Expanded Band is reserved for a Country Club membership of fifty licensees only, is ruining that part of the band. The public would tune there, if there was something to

hear.

**OPEN THE FREQUENCY OF 530 KHZ FOR AM BROADCASTERS,
TODAY. NO INTERNATIONAL TREATIES, REQUIRED**

Additionally, the frequency on the low end of the AM band, namely 530 KHz is available for use, tomorrow and is available on every AM radio sold in the US today. Both 530 KHz and the Expanded Band today, do not require any international treaties, as I understand it. This could be implemented, tomorrow.

**EXPAND THE EXPANDED BAND, TO UTILIZE THE ABANDONED
1705-1800 KHZ SPECTRUM, FORMERLY USED FOR RADIO
LOCATION SERVICES**

That , Heller proposes the Commission extend the frequencies of the Expanded Band from 1610 KHz to 1790 KHz. Currently the band of 1700 KHz to 1800 KHz is reserved for fixed, mobile and radiolocation services, which may be expendable. That service has become obsolete, by virtue of GPS technology, today. According to 47 CFR 2.106, (table of allocations), the band from 1705-1800 kHz is allocated for fixed, mobile, and radiolocation services under FCC parts 80 (Maritime) and 90 (Private Land Mobile). This could be opened up to AM broadcasters, perhaps at a power level of 5,000 watts daytime and 1,000 watts nighttime. To those broadcasters who complain about the price of real estate, or the need to have less efficiency of their proposed antenna, this may be a solution for them.

**REVIEW AND REVIVE THE PREVIOUSLY FILED COMMENTS OF
RICHARD ARSENAULT, IN REGARDS TO BEGINNING PRE-
SUNRISE AUTHORITY AT 5AM, LOCAL TIME. THE TIME HAS
COME TO ADOPT THIS SERIOUS PROPOSAL**

That, Heller suggests that the Commission review the previously submitted comments from Consulting Engineer, Richard Arsenault, who stated that Pre-Sunrise Authority should be extended to begin at 5am, local time. No international treaties would be required, for this simple action, that will help many AM broadcasters today. Richard Arsenault provided a serious proposal, which apparently has not been given a proper review. (Arsenault's Rulemaking, March 1,

2010 is named, "RM-11599") Again, the Commission, unilaterally, has picked 'winners' and 'losers' and has not given Arsenault a serious opportunity for consideration. This proposal needs to be brought forward, as soon as possible.

**REVIEW AND ADVANCE THE PROPOSAL OF SSR
COMMUNICATIONS TO ESTABLISH A NEW CLASS OF FM
STATION, PROPOSED TO BE NAMED 'C-4'**

That, Heller states the filing made by SSR Communications of Flora, MS and assisted by Florida based MMTC to assist Class A FM stations, with a new class of station, C4 at 12 kw ERP. This additional coverage, may help free up some FM stations that are using FM translators today, which would allow more AM's to migrate. That, SSR Communications filed this proposal, prior to Commissioners mentioning their AM Improvement proposal. Again, SSR submitted their proposal in a serious manner, and deserves review. This idea not only deserves further review, it deserves adoption at your earliest convenience. This initiative not only helps small businesses, but minority owned stations, in a big way. (SSR's Proposed Rulemaking has a number assigned on January 29, 2013 as "PRM-13MB") Heller notes that in his immediate listening area, three FM translators could be extinguished or re-deployed for the benefit of AM broadcasters as a result of simply allowing the 'rimshot' FM have a 3dB increase in its signal. (ie. WAUN-FM, Kewaunee, WI and its translators, Del Reynolds owned 98.9 Sturgeon Bay, WI (W255AQ) and 96.9 Green Bay (W245BS), WLGE-FM, Ephraim, WI and Christopher Tarr owned translator at 93.3 Sturgeon Bay, WI (W227CH) The Commission should adopt the C4 Class as soon as possible, and the only decision to be made is whether the power level should be 12 kilowatts (3db more than a Class A FM) or 12.5 kilowatts (3db less than a Class C3 FM).

**LOBBY THE STATE DEPARTMENT AND BROADCASTING BOARD
OF GOVERNORS TO TURN OFF A QUASI-SECRET NAMELESS
AM SUPERSTATION AT MARATHON, FLORIDA**

That, Heller suggests the Commission make contact with the U.S. State Department Secretary, John Kerry and the Broadcasting Board of Governors, and 'educate them' in the AM interference dilemma

and consider turning off an AM station, operating in quasi-secret at Marathon, Florida. This station, effectively blocked at the Cuban coastlines, is the main cause of the Cuban government jamming, to US AM broadcasters, to this day. The Cuban effort, contributes greatly to the noise floor of most AM radio stations, operating east of the Mississippi River, today. This diplomacy, could alleviate some of the noise level interference heard by broadcasters, especially in the Southeastern United States. While the radio station does not appear in the FCC's database, it is clearly found on Google Maps as a four-tower, in-line array at the coordinates of 24 degrees, 41 minutes 57.24 seconds N.L. and 81 degrees, 5 minutes, 18.33 seconds W.L. as the center of the array. It should be noted, that Heller has been a consistent critic of this AM station, for many years, prior to President Obama shaking the hand of Cuba President Raul Castro at the memorial service of Nelson Mandela. (Heller column in 'Radio World' on October 13, 2009)

**'CITY OF LICENSE' STANDARDS BEING LOOSENEED FOR AM
BROADCASTERS, AT THE DETRIMENT OF FM LICENSEES,
WHICH HAVE BEEN RECENTLY TIGHTENED**

Heller has no opinion on modifying daytime community coverage standards, except to say, if those standards are relaxed, the recent tightening of FM city of license standards should be rolled back, at the same time, out of fairness. It is patently unfair to FM broadcasters to 'tighten up' standards of moving a City of License from a community of 7,500 or more, while at the same time, relaxing AM standards. This proposal will create a 'double standard', which is simply unacceptable.

**OVERMODULATION AND SPLATTER CONTINUES IN AN ERA OF
'SPLATTER MONITORS' AND ANNUAL N.R.S.C MEASUREMENTS**

Supermodulation of AM carriers still cause splatter. Aging transmitters who occasionally 'overshoot' their limits are a problem, up to 20 Khz away on the AM band, on a regular basis. Heller's own station suffers by a reluctant group operator's engineer to turn down their 1 kilowatt AM station, to prevent splatter, and Heller has no recourse, except to hire expensive consulting engineers to confirm that some old transmitters that are set for 125% positive peaks,

create problems for adjacent channels. This is in the 'analog' mode. The Commission should entertain the slight reduction of the modulation scheme of AM broadcasters to help with interference. Change peak modulation to 120% positive peaks from 125%. Change peak modulation to 99% negative peaks from 100%.

HD RADIO AND IBOC CHALLENGES

Heller has no opinion on 'HD Radio' or 'IBOC' for this filing. It is a shame to see one large broadcasting group mandating its AM stations narrow its analog bandwidth to 6kHz for its stations that are operating with the digital mode. The design engineers at Ibiquity and the transmitter manufacturers should have already come up with a solution to this 'frying noise', which they have known about for many years. Instead, many IBOC users and simply turning off their equipment, which will affect the public's confidence in the system. AM radio, when set to 'original factory specifications' tuned properly to a matched antenna and ground system, sound terrific. To operate a station as 'handicapped', over a long period of time, is a shame.

A CLEARING HOUSE FOR 'UTILITY-BASED' AM INTERFERENCE FOR STANDARD BROADCAST INDUSTRY AND FOR AMATEUR RADIO OPERATORS. THE COMMISSION HAS THE 'CLOUT', TO ASSIST WITH LITTLE BUDGET CONSTRAINTS.

Establish a position within the Commission, titled "Office of Utility-based Interference" funded by \$10 increase in FCC annual fees of AM and FM radio stations. With each state government having its own form of Utility regulation, some interference complaints can go on for six months, without any assistance to the radio station owner, amateur radio operators or listening public. This position could be patterned after the "Call Sign Assignment Desk" at the FCC. While initial requests are entered into An on-line computer program, and then one human contact approves or denies the request. This is a very efficient, existing FCC service. If a radio engineer or amateur radio operator were to find interference from a loose connection on a power pole, or bad transformer or cracked insulator, etc....the party could report the interference area to the Commission's "Office of Utility-based Interference", which could determine the State, nearest municipality and proper utility to report the problem to. A copy of the

original complaint would also be forwarded to the State Utility Commission, for follow-up. In today's world, Utilities simply are profit-driven and have little desire to take interference issues seriously. Truthfully, when a malfunctioning power grid is creating interference, it is actually creating a loss of potential revenue to the Utility, by the loss of electricity. It should be noted, this office should not be abused, by reporting of florescent lamps or lamp dimmers, etc. A filter at the portal of the on-line page, would clear out those concerns.

SYNCHRONOUS OPERATION OF SIMILAR STATIONS ON SAME FREQUENCY, NOT OWNED BY SAME LICENSEES

Synchronization of similar radio stations on same frequency, will help eliminate flutter, fading at night on AM band. A test was made by Nautel of Nova Scotia in the late 2000's which gained little interest or traction. Simply, GPS technology centered the frequency of AM transmitters to within one cycle of licensed frequency, and when co-channel stations did the same, the effect was dramatic. This technology now exists on every cell phone tower in the U.S. and can be reasonably adopted by AM broadcasters at a reasonable expense. In Heller's case, having his WGBW-AM 1590 Khz transmitter operating at the same exact frequency of WCGO-AM 1590 in Evanston, IL, WPVL-AM 1590 in Platteville, WI and WAKR-AM 1590 in Akron, OH would give each station a further reach at night, without co-channel interference. Nautel, a transmitter manufacturer based in Nova Scotia, Canada has an audio CD and study available for Commission review, if interested. The audio results are impressive, and worth considering. Today, AM licensees are mandated to stay within plus or minus 20 cycles of its assigned frequency. With today's available technology, those carriers can be exactly centered on frequency, using current GPS based equipment, found in every cellphone tower in the US, today.

Note: This is not promoting 'synchronous radio stations' owned by the same person. Somehow, the Commission put forward an initiative that is not as originally clearly described. Heller has no interest in buying or operating a network of similar frequencies, which appears to be what the Commission was initially promoting.

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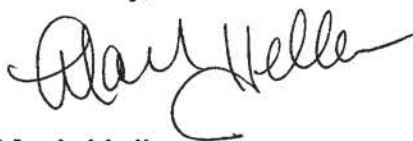
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CONCLUSION

Finally, this was discussed between engineers on a broadcasting site recently, "the problem is the radio industry is one that never looks at the future and dismisses all the warning signs until the future is suddenly in their faces." The time to act, is now. The Commission's 'blind eye' approach to the failure of the Pre-Sunrise / Post-Sunset computer program is shameful. The Commission could have also been 'pro-active' as stations were leaving the Expanded Band, after the first five years of adoption. Additionally, the proposals which have been made by Richard Arsenault, a Consulting Engineer, and SSR Communications, of Flora, MS, an owner of FM radio station and MMTC which works to benefit Minority Radio Station operators and many small market Class A FM owners, should not be pushed aside, for the convenience of the Commission's entry into AM improvement.

Sincerely,



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